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## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte VIBHAV GARG, RENAT IDRISOV, TIMOFEY BARMIN, ANDREY VASENIN, VADIM LITVINOV, and DMITRY IVANOV<sup>1</sup>

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Appeal 2019-000879 Application 15/176,871 Technology Center 2800

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Before CATHERINE Q. TIMM, LINDA M. GAUDETTE, and CHRISTOPHER C. KENNEDY, *Administrative Patent Judges*.

KENNEDY, Administrative Patent Judge.

### **DECISION ON APPEAL**

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's decision rejecting claims 1–30 as ineligible under 35 U.S.C. § 101. We have jurisdiction under 35 U.S.C. § 6(b). We AFFIRM.

### BACKGROUND

The subject matter on appeal relates to systems and methods of testing computer systems. Spec. 1:23–24; Claim 1. Claim 1 is reproduced below from page 21 (Claims Appendix) of the Appeal Brief:

<sup>&</sup>lt;sup>1</sup> We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. The Appellant identifies the real party in interest as Satori Worldwide, LLC. *See* Appeal Br. 2.

1. A method of testing a first computer system, the method comprising:

implementing a first pool of workers on a plurality of nodes of a second computer system, each node comprising one or more of the workers from the first pool;

providing a set of instructions to the first pool of workers for performing a first task configured to introduce a workload on the first computer system, wherein the first computer system is separate from the second computer system comprising the first pool of workers;

employing the first pool of workers of the second computer system to perform the first task configured to introduce the workload on the first computer system; and

monitoring, by one or more computer processors, at least one performance metric associated with the first computer system under the workload while the workers from the first pool of the second computer system are performing the first task.

## **ANALYSIS**

Claims 1–30 stand rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter. The Appellant argues the claims as a group. *See generally* Appeal Br. We select claim 1 as representative, and the remaining claims on appeal will stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2017).

After review of the cited evidence in the appeal record and the opposing positions of the Appellant and the Examiner, we determine that the Appellant has not identified reversible error in the Examiner's rejection. Accordingly, we affirm the rejection for reasons set forth below, in the Final Action dated January 22, 2018, and in the Examiner's Answer.

Determining whether a claimed invention is patent eligible under § 101 is a two-step process that requires (1) evaluating whether the claim is

directed toward a patent-ineligible concept, i.e., a law of nature, natural phenomenon, or abstract idea; and, if so, (2) determining whether the claim's elements, considered both individually and as an ordered combination, transform the nature of the claim into a patent-eligible application. *See Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 217–18 (2014).

As to step (1) of *Alice*, the Examiner determines in the Final Action that claim 1 is directed to abstract ideas and identifies several claim recitations that encompass abstract ideas. *See* Final Act. 2–4. The Examiner finds, *inter alia*, that the recited "monitoring" step involves the collection and comparison of known information, and the Examiner asserts that similar claims have been held ineligible by the Federal Circuit. *Id.* at 3.

As to step (2) of *Alice*, the Examiner determines that "[t]he additional elements when considered both individually and as a combination do not amount to significantly more than the abstract idea" because the additional elements are generic "computing devices" that perform "generic functions without an inventive concept." *Id.* at 3–4. In the Examiner's Answer, the Examiner cites several references in support of the Examiner's finding that the additional elements are "routine, well-known, and conventional." Ans. 4.

Relevant to step (1) of *Alice*, the Appellant argues that claim 1 is "not directed to 'a fundamental economic practice," Appeal Br. 6, and that "the claims . . . do not recite a mathematical algorithm," *id.* at 9. The Appellant also argues the claims "improv[e] scalability" of computer testing methods, *id.* at 7, and that the claims "are limited to technical systems and methods for

performing functions that are an advance over conventional computer and network technology," *id.* at 11.

Relevant to step (2) of *Alice*, the Appellant argues "the claims amount to significantly more than an abstract idea" because they "offer improvements to the field of workload testing for performing a stress test on a computer system or system under test." *Id.* at 14–15.

## Legal Framework

In determining whether a claim falls within a category excluded from eligible subject matter, our inquiry focuses on the Supreme Court's two-step framework described in *Mayo* and *Alice*, set forth above. *Alice*, 573 U.S. at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)).

In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219. Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity (*Alice*, 573 U.S. at 219–20; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010)) and mental processes (*Gottschalk v. Benson*, 409 U.S. 63 (1972)).

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]." *Id.* (alterations in original) (quoting *Mayo*,

566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.* 

In January 2019, the USPTO published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Guidance").<sup>2</sup> "All USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." *Id.* at 51.

Under the Guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) additional elements that integrate the judicial exception into a practical application (see MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. 2018)).

Guidance, 84 Fed. Reg. at 52–55. Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (see MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

Guidance, 84 Fed. Reg. at 52–56.

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<sup>&</sup>lt;sup>2</sup> In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (available at https://www.uspto.gov/sites/default/files/documents/peg\_oct\_2019\_update.p df).

Judicial Exception (Guidance step (1))

Consistent with the Examiner's analysis, claim 1 recites steps of "implementing a first pool of workers," "providing a set of instructions to the first pool of workers," and "employing the first pool of workers" to perform a task. Those steps concern managing behavior of people, including providing rules or instructions to be followed. *See* Guidance, 84 Fed. Reg. at 52 & n.13 ("Certain methods of organizing human activity" include "managing personal behavior or relationships or interactions between people (including . . . following rules or instructions)."). Accordingly, those steps recite certain methods of organizing human activity, as contemplated by the Guidance. *See id*.

Claim 1 also recites a step of "monitoring, by one or more computer processors, at least one performance metric associated with the first computer system under the workload while the workers from the first pool of the second computer system are performing the first task." The Guidance states that, "[i]f a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind." Guidance, 84 Fed. Reg. at 52 n.14 (citing several Federal Circuit cases).

Under its broadest reasonable interpretation, we find that the "monitoring" step of claim 1 could be performed in the mind but for recitation of generic computer components (i.e., "by one or more computer processors."). Claim 1 does not identify any specific performance metric that is to be monitored; nor does claim 1 limit the way in which the metric is monitored. Apart from the recitation of generic computer components, the

claim encompasses, for example, a person observing a computer display that shows a line graph of a property of the first computer system. *Cf.*Spec. 15:30–16:5, Figs. 7 & 8. The recitation of generic computer components in claim 1 is similar to the recitation of generic computer components in Example 37, Claim 3, of the USPTO's Subject Matter Eligibility Examples. *See* Subject Matter Eligibility Examples: Abstract Ideas, at 4, *available at* https://www.uspto.gov/sites/default/files/documents/101\_examples\_37to42\_20190107.pdf (last accessed June 19, 2020) (explaining that the step of "determining, *by a processor*, the amount of use of each icon over a predetermined period of time" recites a mental process (emphasis added)).

Thus, even assuming that the Appellant is correct that claim 1 does not recite a mathematical algorithm or a fundamental economic practice, *see* Appeal Br. 6, 9, in accordance with the Guidance we determine that claim 1 recites certain methods of organizing human activity and mental processes, and thus recites an abstract idea. *See* Guidance, 84 Fed. Reg. at 52–55.

# Integration into a Practical Application (Guidance step (2))

Turning to step (2) of the Guidance, we determine that claim 1, as a whole, does not integrate the judicial exception into a practical application. Integration into a practical application requires an additional element or a combination of additional elements in the claim to "apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception." Guidance, 84 Fed. Reg. at 53–54; see also id. at 55 (setting forth exemplary considerations indicative that an

additional element or combination of elements may have integrated the judicial exception into a practical application).

Consistent with the Examiner's findings, *see* Final Act. 2–4, claim 1 recites an "implementing" step, a "providing" step, an "employing" step, and a "monitoring" step. The "implementing" step specifies that a "pool of workers" are implemented on "a plurality of nodes of a second computer system." *See* Claim 1. This step encompasses as few as two workers operating on two nodes.

The "providing" step specifies that a generic "set of instructions" is provided to the pool of workers, and that the instructions describe a generic "task configured to introduce a workload" on the computer system being tested. *See id*. Other than the requirement that the task "introduce a workload," the task is not limited.

The "employing" step specifies that the workers are used "to perform the first task." *See id*.

And, as described above, the "monitoring" step specifies that at least one "performance metric" is monitored while the workers perform the first task. *See id*.

As is evident from the steps described above, the claim recites the use of workers using a plurality of nodes (e.g., remote computers) to generate a workload on a system that is being tested, and it recites that the performance of the system being tested is monitored while under the workload. The Examiner finds, and we agree, that the limitations beyond the "monitoring" step link the monitoring step to a particular technological environment or field of use, using generic computer equipment, and do not integrate the judicial exception into a practical application. *See* Final Act. 3–4; *cf. Alice*,

573 U.S. at 223 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention."). Additionally, as set forth above, the limitations other than the "monitoring" step concern methods of organizing human activity.

Citing *DDR Holdings v. Hotels.com*, 773 F.3d 1245 (Fed. Cir. 2014), the Appellant argues that the claims at issue are patent eligible because they are rooted in computer technology and are not directed to a fundamental economic practice. Appeal Br. 5–6. We addressed the argument concerning whether the claims are directed to a fundamental economic practice above. As to the Appellant's reliance on *DDR Holdings*, critical to the eligibility outcome in that case was the Federal Circuit's determination that the recited limitations were not "operating in [their] normal, expected manner," and that "the claims recite an invention that is not merely the routine or conventional use of the Internet." 773 F.3d at 1258–59. In this case, the computer systems appear to be operating in their ordinary manner. We are not persuaded that any similarities of the claims at issue in this case to the claims at issue in *DDR Holdings* indicate reversible error in the Examiner's rejection.

The Appellant also relies on the following Federal Circuit cases in support of the Appellant's arguments that the claims recite an improvement to technology: (1) *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), (2) *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011), and (3) *Bascom Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). *See* Appeal Br. 7–17; *see also* Reply Br. 3–6. We are not persuaded that the Appellant's discussion of any of those cases indicates reversible error in the Examiner's rejection.

As to Enfish, the Federal Circuit's determination that the claims at issue in that case recited "an improvement to computer functionality itself, not on economic or other tasks for which a computer is used in its ordinary capacity," was critical to the eligibility outcome. See 822 F.3d at 1336. In this case, the Appellant does not persuasively identify an improvement to computer functionality itself that is encompassed by the claims. On the contrary, the computers recited by the claims appear to be functioning in their ordinary manner. The first computer system (the system being tested) is not required to do anything other than be subjected to a workload. The nodes of the second computer system are required only to "introduce a workload on the first computer system," and are not limited in the way that the workload is introduced. Although the Appellant argues that an improvement lies in the "scalability" of the claimed method, e.g., Appeal Br. 5, we do not discern scalability to be "an improvement to computer functionality itself" as contemplated by *Enfish*, particularly in view of the fact that the claims encompass generic computers performing generic functions to introduce a generic workload.

As to *Classen*, the claims at issue in that case that were determined to be patent eligible involved the physical step of performing an immunization after collecting and comparing data. 659 F.3d at 1060–61. We discern no comparable physical step or tangible application in the claims at issue before us. In particular, claim 1 simply requires "monitoring." The monitoring can be done in any way, it can be of any performance metric, and no action is required to be taken as a result of the "monitoring." We are not persuaded that any similarities of the claims at issue here to the claims at issue in *Classen* indicate reversible error in the Examiner's rejection.

As to *Bascom*, critical to the Federal Circuit's determination of subject matter eligibility in that case was the "non-conventional and nongeneric arrangement of known, conventional pieces." 827 F.3d at 1350. We are not persuaded that the recited steps of claim 1 employ a nonconventional and non-generic arrangement of pieces. On the contrary, and as set forth above, the "implementing," "providing," and "employing" steps recite methods of organizing human activity, and they limit the "monitoring" step to a particular technological environment comprising generic computer equipment being used in an ordinary way. *Cf. BSG Tech LLC v.*BuySeasons, Inc., 899 F.3d 1281, 1287 (Fed. Cir. 2018) (explaining that a claim does not become eligible merely because "it recites limitations that render it narrower than that abstract idea").

The Appellant also argues that the Examiner "fails to consider the ordered combination of claim features." Appeal Br. 17–18 (citing *McRO*, *Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1316 (Fed. Cir. 2016)); Reply Br. 6–8. We disagree. The Examiner finds that the additional elements beyond the recited abstract idea are "generic computer component[s] storing data [and] performing generic functions without an inventive concept," that they pertain to "field of use [limitations] that attempt to limit the abstract idea to a particular environment," and that "[l]ooking at the element[s] as a combination does not add anything more than the elements analyzed individually." Final Act. 3–4. As set forth above, we are not persuaded of reversible error in those determinations.

Inventive Concept (Guidance steps (3) and (4))

Turning to steps (3) and (4) of the Guidance, the Appellant has not shown error in the Examiner's determination that the limitations of claim 1

beyond the abstract idea itself are well understood, routine, and conventional. Although the Appellant asserts that the Examiner fails to comply with the *Berkheimer* Memo<sup>3</sup> because the Examiner did not cite evidence, Appeal Br. 19, the Appellant does not persuasively identify any limitation of claim 1 that is not well understood, routine, and conventional, and we observe that, in the Answer, the Examiner cites several references to support the relevant findings. *See* Ans. 4. The Appellant's continued assertion in the Reply that the "Office action fails to provide any rebuttal evidence to justify the assertion that the claim limitations are 'conventional,'" Reply Br. 8, is unpersuasive because it fails to acknowledge or address the evidence cited by the Examiner in the Answer, *see* Ans. 4.

On this record, having considered the limitations individually and in combination, we are not persuaded that any step of claim 1 beyond those encompassing the abstract idea itself recites subject matter that is not well understood, routine, and conventional, or that claim 1 otherwise amounts to "significantly more" than the abstract ideas to which it is directed.

We have carefully considered the Appellant's arguments but are not persuaded of reversible error in the Examiner's rejection of claim 1 under § 101.

<sup>&</sup>lt;sup>3</sup> "Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)," *available at* https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF.

# **DECISION SUMMARY**

# In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed
1–30	101	Eligibility	1–30	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

# **AFFIRMED**